ElectraFun 2.4G

With factory fitted 2.4GHz Radio

ASSEMBLY INSTRUCTIONS

ELECTRAFUN2.4G SPECIFICATIONS

Wingspan:	1030mm
Wing area:	14dm2
Dihedral angle:	8 degrees
Length:	750mm
Weight (inc. battery):	528g
Battery:	8.4V 900mAh NiMh
Power:	380 motor
Radio Control:	EScale 2.4GHz/4ch
Flight time:	Up to 15 minutes

ESCALE

IMPORTANT!
Radio controlled model
NOT A TOY!

This model must be operated according to the instructions.

May cause serious injury to persons or property if not used responsibly. Unsuitable for children under 14 years.

CONTENTS

Warning:

You are solely responsible for your actions.

Neither J Perkins Distribution Ltd/Model Engines (Aust.) Pty. Ltd. nor its distributor shall be responsible for any liability or breach of the law associated in any way relating to the use of the camera or the publication of images.

VITAL SAFETY INFO

CAUTION! The ElectraFun2.4 is not a toy.
It can cause injury to persons/animals and/or property if not used correctly. It is unsuitable for persons under the age of 14. You should take care and observe the principles of safety when flying this model. In the UK, we recommend you observe the British Model Flying Association (BMFA) safety code at all times, which can be found at the following address: http://www.bfma.org
In Australia, please contact your hobby supplier or the Model Aircraft Association of Australia (MAAA).
YOU ASSUME ALL RISK.
Before beginning construction, please read this document thoroughly and familiarize yourself with the construction sequence of the Electrafun2.4G. If any information in this manual is unclear, please contact your supplier for help. After reading this manual store it in a safe place for future reference. This kit is a beginner-intermediate model, basic RC flying knowledge and skills are required.

ABOUT THE FLYING AREA REQUIRED

If you are a newcomer to R/C flight and have never flown a radio control model before; it is vital you seek advice from an experienced model pilot on where and how to fly.
Only fly in large open spaces that are approved for R/C model flying and that are away from people, animals, buildings, power lines, water or trees.
Only fly in bright sunny conditions where wind speed does not exceed 5mph.

TRAINING, CRASHES & SPARES

The ElectraFun2.4 has been designed to be strong and very easy to repair, however, it is not invulnerable and most people will break parts during their flying career. This is quite normal. All parts are available as spares from your local hobby retailer. There is a Spare Parts List in the back of this manual.
Crash damage is not covered by warranty.

IMPORTANT NOTICE

Please read the manual.

WEEE DISPOSAL

Do not dispose of this product with other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local council, your household waste disposal service or the shop where you purchased the product.

GUARANTEE/WARRANTY

J. Perkins Distribution Ltd guarantee this product to be free of manufacturing and assembly defects for a period of one year from time of purchase. In Australia, the Model Engines (Aust.) Pty. Ltd. manufacturers warranty period is for 30 days. This does not affect your statutory rights. This warranty is not valid for any damage or subsequent damage arising as a result of a crash, misuse, modification or for damage or consequential damage arising as a result of failure to observe the procedures outlined in this manual. Operation of this model is carried out entirely at the risk of the operator. Please note that, whilst every effort is made to ensure the accuracy of instructions and material included with this product, mistakes can occur and neither J. Perkins Distribution Ltd/Model Engines (Aust.) Pty. Ltd. nor it's distributors will be held liable for any loss or damage arising from the use of this model or for any loss or damage arising from omissions or inaccuracies in the associated instructions or materials included with this product.

We reserve the right to modify the design of this product, contents and manuals without prior notification.

KIT CONTENTS

CONTENTS LIST

- 1 2.4 GHz Transmitter and Receiver
- 1 Fuselage with 2.4 GHz receiver, 2 x servos, 380 motor and ESC fitted.
- 1 Main Wing w/Spar
- 1 Horizontal Tail
- 1 Fin and Rudder
- 1 Undercarriage included (fitting is optional)
- 1 7-Cell 8.4V 900mAh NiMh Battery
- 1 Battery Charger
- 2 x 2-Bladed Propellers
- 1 Mains power supply for charger

ADDITIONAL ITEMS REQUIRED

- 8 x AA Transmitter batteries

NIMH BATTERY SAFETY

BEFORE CHARGING NIMH BATTERIES

- Before charging your battery check for any damage e.g. check if the battery is leaking or if the battery cells have been punctured. If any of the above is true: DO NOT CHARGE THE BATTERY!

CHARGING NIMH BATTERIES

- Only use a charger designed to charge NiMh batteries. Never use a LiPo or other charger as this is very dangerous.
- Never charge unattended. Always stay with your battery whilst charging in case of overheating or fire.
- Charge on a safe surface or container (e.g. old unused microwave oven). Charge only on non-flammable surfaces, e.g. concrete floor preferably outdoors, or in a pyrex cooking dish with the battery placed on a bed of sand, or in a fireplace. Never charge inside a car!
- Switch off charger if battery gets too hot. If the battery becomes hot to the touch during charging, disconnect and switch off immediately.
- Extinguish fires with sand. If something goes wrong and your battery catches fire, always have sand from a fire bucket at hand to douse the flames. Do NOT use water!

USING NIMH BATTERIES

- Do not modify/change any part of the battery or lead. Do not remove its heat shrink protective covering. Removal or modification may damage the battery and will invalidate any warranty claim.
- Do not place this battery near fires or anything with high temperatures.
- Do not charge batteries while you are driving and do not store batteries in any type of motor vehicle.
- Do not let the battery get wet or become submerged in any type of liquid.
- Do not carry loose batteries in your pocket or bag as they could short-circuit against other items.
- If you should get electrolyte from the cells on your skin, wash thoroughly with soap and water. If in your eyes, rinse thoroughly with water. Seek medical assistance.

NIMH FLIGHT BATTERY

The NiMh flight battery is a designed to give a flight time of approximately 7-8 mins per charge of powered flying.
Flying time can be extended up to approx. 15mins by throttling off and gliding for short periods of time.
The Battery is supplied in a partially charged state.
The battery is supplied with a white plug which fits into the white plug on the Electronic Speed Controller (ESC) This white plug is also used as the charge lead. Connect the white plug to the 12V charger. Always leave the battery in a partially charged state. Never leave it in a discharged state.
The battery should be charged if you notice the model losing power. At this point land and recharge the battery.
Do not be tempted to run the battery past this stage as you will be over-discharging and the battery may be damaged.

WARNING!

We recommend that you use only the supplied EScale charger with this battery.

WARNING!

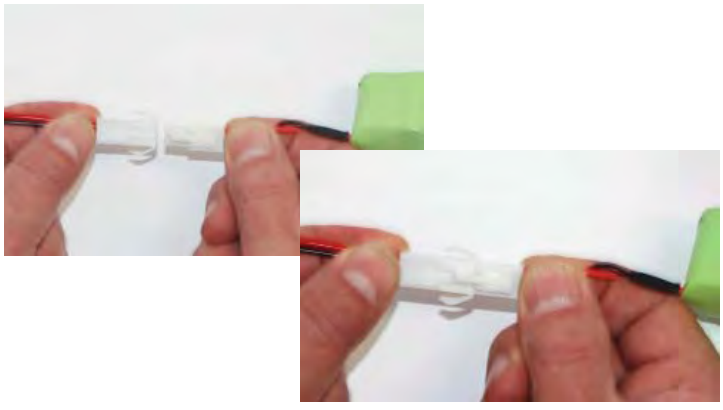
Over-discharging will shorten the life of the battery or destroy it. If you notice the model is losing power, land the model and recharge the battery.

WARNING!

Do not short circuit—battery may explode!

CHARGING THE FLIGHT BATTERY

The charger is designed to automatically charge the NiMh battery in just 20 to 30 minutes from a discharged state.
The automatic charger is powered by the mains power supply illustrated above.
Alternatively, you can use a 12V sealed modelling battery to power the DC automatic charger using the DC power leads supplied.

1. Connect the power supply to the charger. The LED on the charger shows no light.	
2. Insert the white plug attached to the charger into the white plug on the battery. Make sure it is fully connected. **Charging:** Charge LED is solid RED. **Fully charged:** Charge LED is solid GREEN. 3. When the battery is fully charged disconnect the battery from the charger. Disconnect the power supply from the charger. ***Your NiMh battery is ready for use***	
4. Alternatively you can connect the charger to a 12V lead acid battery using the supplied lead.	

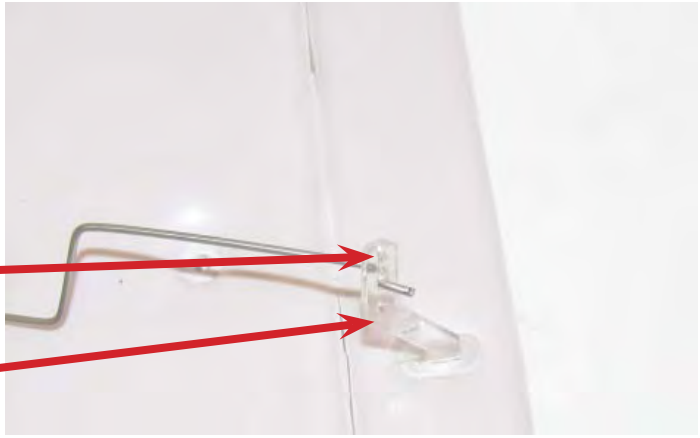
5. Push the propeller firmly onto the motor shaft whilst supporting the end of the motor as shown.

6. Locate the elevator pushrod which exits from the left side of the tail boom when viewed from the rear.

7. Connect the elevator Z bend (located in the end of the elevator pushrod) into the clear plastic control horn (attached to the elevator).

8. New comers should use the outer hole (to reduce elevator sensitivity).

9. Experts should use the inner hole.



10. Locate the rudder pushrod which exits from the right side of the tail boom when viewed from the rear.

11. Connect the rudder Z bend (located in the end of the rudder pushrod) into the clear plastic control horn (attached to the rudder).

12 New comers should use the outer hole (to reduce elevator sensitivity).

13. Experts should use the inner hole.

14. Slide the tail plane and fin over the tail boom.

15. Pass the retaining bolts at the base of the fin through the tail plane and then through the tail boom..

16. If you wish to use the landing gear, (not recommended for use on rough surfaces) then now is the time to attach the tail wheel.

17. Attach 2 nuts to the retaining bolts and tighten securely.

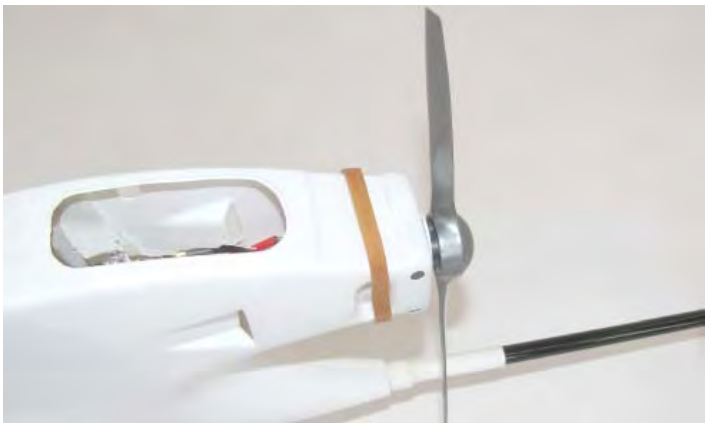
    Tip: Place a small drop of thread locking compound on the retaining bolts prior to attaching the nuts, this will help prevent the nuts from coming loose and falling off.

18 If you wish to use the landing gear, (not recommended for use on rough surfaces) then now is the time to insert the main undercarriage into the slot under the fuselage by squeezing the undercarriage wire whilst pushing the undercarriage wire firmly into the fuselage.

19. Test the undercarriage is installed at the correct angle on a flat surface. Squeeze and move side to side to ensure the fuselage points straight up.

20. Attach the wing using a minimum of 4 rubber bands.

21. Place the rubber bands on the back of the fuselage as shown.



22. Make sure wing is seated centrally on the fuselage.

SWITCH ON THE TRANSMITTER

23. The Electrafun2.4G comes with an EScale 2.4GHz. Transmitter. (Mode 1 shown)

24. Install 8-AA batteries (sold separately) into the battery compartment located in back of Transmitter case.

25.

PLEASE READ THIS

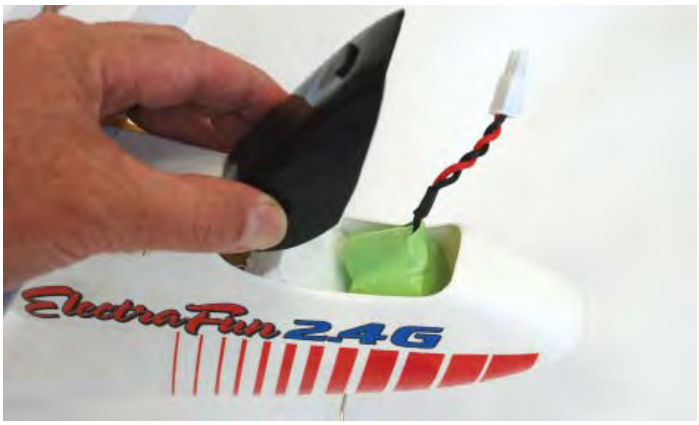
Always turn your transmitter ON before you turn your plane on.

Always turn your plane OFF before you turn your transmitter OFF.

Note: Ensure the throttle stick and trim slider are in the down position. The other trim sliders should all be centered as shown.

26. Turn on the transmitter by pushing the ON/ OFF sliding switch forward..

27. After turning ON the transmitter as shown above, open the canopy of the Electrafun2.4G and place the charged battery in the position shown.



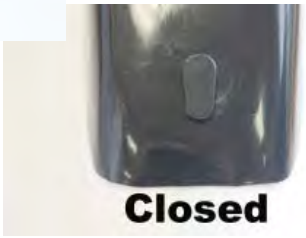
Note: Double check your transmitter is ON.

28. Plug the white plug from the battery to the white plug from the ESC in the plane.

    You should hear the servos come to life and the LED on the FlyCamOne ECO will glow solid GREEN.

Note: If the camera light does not glow solid green, unplug the battery, wait a few seconds and try again.

29. Secure the battery by closing the canopy latch.



30. You are now ready to check the elevator and rudder are set correctly and working in the correct directions.

TRANSMITTER LAYOUT

MODE 2 TRANSMITTER LAYOUT

31. Left Stick is Throttle up and down (side to side not used on Electrafun2.4G).
32. Right Stick is Elevator (up and down) and Rudder (side to side)
33. Servo reversing switches across lower front of case.
34. Fine trim adjustments for 4 main channels.

Please see the EScale Transmitter Manual for more detailed instructions on Transmitter functions

MODE I TRANSMITTER LAYOUT

35. Left Stick is Elevator up and down (side to side not used on Electrafun2.4G).
36. Right Stick is Throttle up and down and Rudder side to side
37. Servo reversing switches across lower front of case.
38. Fine trim adjustments for 4 main channels.

Please see the EScale Transmitter Manual for more detailed instructions on Transmitter functions

PAIRING THE ESC AND TRANSMITTER

39. PLEASE NOTE: The first time that the model is powered up the ESC must recognize the transmitter and verify the range of throttle motion. Follow these easy steps.
40. With the throttle stick at its lowest position, turn on the transmitter and then plug the flight battery into the ESC.

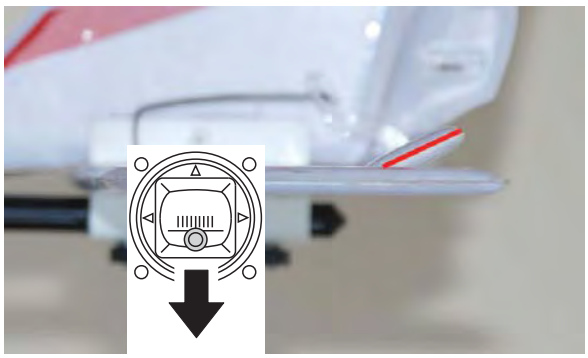
Note: Photo shows a Mode 2 transmittter

41. After a few seconds there will be a beep tone, move the throttle stick to full throttle, there will be another beep tone but the motor will not start.

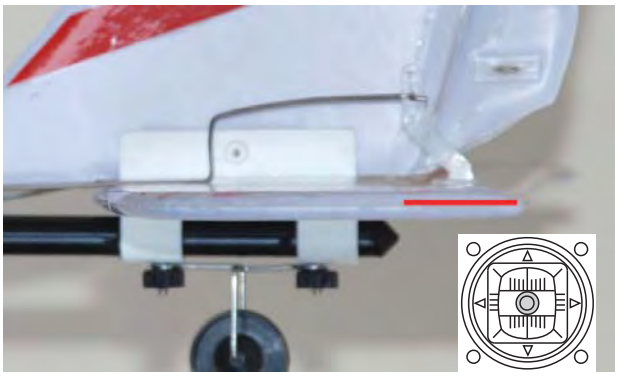
42. Return the stick to its lowest position for the final confirmation tones after which the throttle will work normally.
43. Please note that this process only needs to be done one time. After this the throttle will operate normally for all subsequent flights.

44. Elevator is controlled by the elevator stick. Check that the direction and distance of movement is correct.
45. Stick toward the bottom of the transmitter the elevator should move up. When moved toward the top of the transmitter the elevator should move down.
46. Adjust the position of the pushrod to get approx. 1/4" (8mm) in each direction.

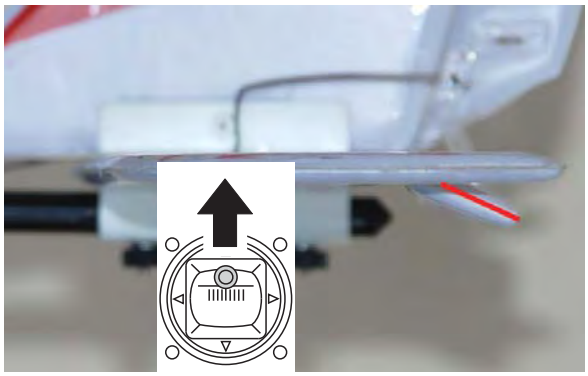
Note: Use two pairs of pliers to gently change the Z-bend to acheive neutral when the elevator stick and trim are both centred.



Up Elevator



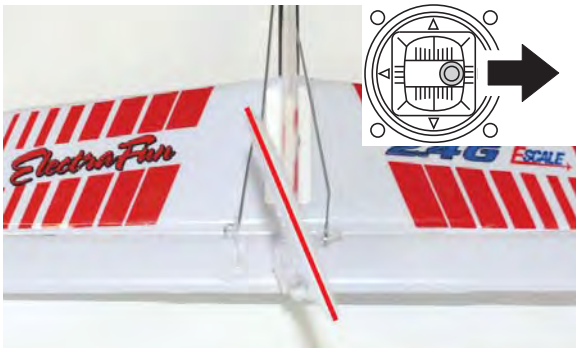
Neutral Elevator



Down Elevator

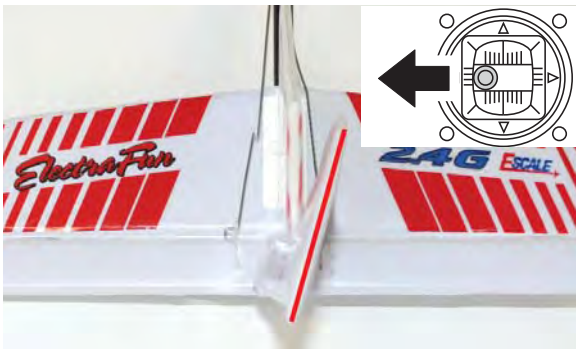
47. Rudder is controlled by the rudder stick. Check that the direction and distance of movement is correct. Stick to the right, rudder should move to the right and stick to the left, rudder should move to the left.
48. If the direction is incorrect, switch the servo-reversing switch on the front of the transmitter.
49. Adjust the position of the pushrod to get approx. 1/2" (13mm) movement in each direction measured at the trailing edge.

Note: Use two pairs of pliers to gently change the Z-bend to achieve neutral when the elevator stick and trim are both centred.



Right Rudder

Neutral Rudder



Left Rudder

PREFLIGHT CHECKS

If you are new to flying R/C aircraft, or even an experienced modeller, we recommend you have a fellow R/C modeller help you with the first flight.

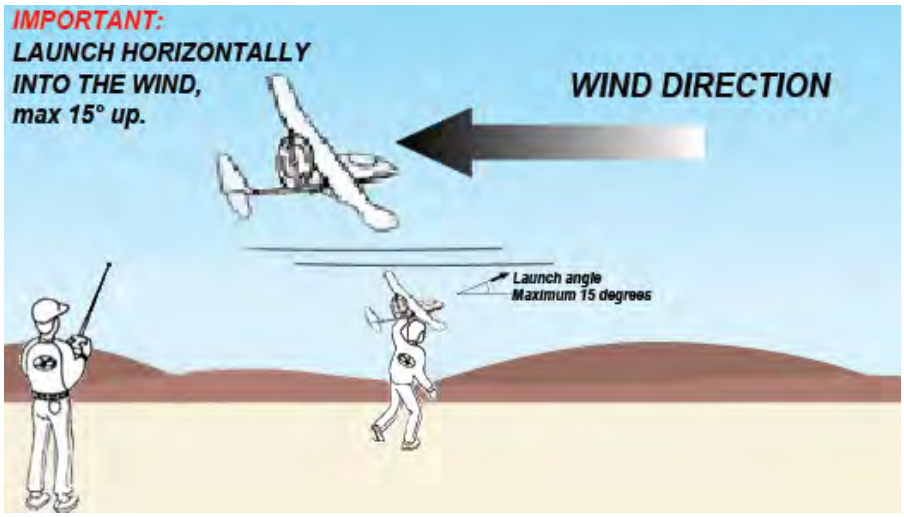
Some items you will need to complete on your first preflight are:

1. Aircraft assembled correctly and ready for flight.
2. All control throws are set per this manual.
3. Transmitter battery power is good.
4. Flight Battery is fully charged and secure.
5. All electronics are operating correctly, proper direction, and secure.
6. Wait for a calm or light wind day for first flights.
7. If you are new to R/C flying, consider having an accomplished flyer make the first flight and trim the aircraft.

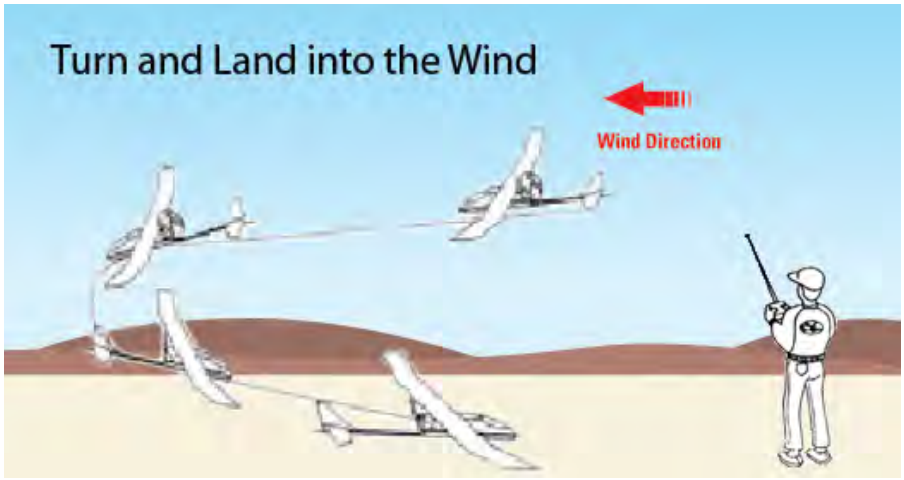
FLYING

Ask another person to launch the Electrafun2.4G into the wind horizontally with the nose slightly up, but no more than 15 degrees. Smoothly advance the throttle. After a few feet apply a small amount of up elevator and the model will begin to climb. Continue to climb out at a shallow angle until you reach an altitude of 75 to 100 feet and level off. Adjust the flight surface trims until the model flies wings level without a tendency to climb or dive. When making a landing approach a small amount of throttle should be maintained. Moving the throttle to the down position while flying will prolong the flight as the model has a very good glide angle. When you need more height, move the throttle to the up position. When you are ready to land, move the throttle to the down position and glide into the wind to land.
We hope that you enjoy your Electrafun2.4G as much as we do.

TAKE-OFF



LANDING



SPARE PARTS - AUSTRALIA

Please order spare parts for your Electrafun2.4G from your local hobby retailer:

Part No.	Description
EL-034	E-SCALE 4ch TX/RX SET (MODE 2) 2.4GHz
EPH-0017	E-SCALE 6ch RECEIVER 2.4GHz
EL-001	FUSELAGE & BOOM - ELECTRACAM/ELECTRAFUN R/C (NO DECAL)
EL-002	TAIL & FIN SET - ELECTRACAM/ELECTRAFUN R/C (NO DECAL)
EL-003	MAIN WING SET - ELECTRACAM/ELECTRAFUN R/C (NO DECAL)
EL-032	DECAL SET - ELECTRAFUN2.4G
EL-006	PROPELLER - ELECTRACAM/ELECTRAFUN R/C
EL-099	NIMH 900Mah BATTERY - ELECTRACAM/FUN R/C (8.4v)
EL-098	SERVO - ELECTRACAM/FUN R/C
EL-020	LANDING GEAR SET- ELECTRACAM/FUN R/C
EL-010	ELECTRIC MOTOR - ELECTRACAM/FUN R/C
EL-008	SPEED CONTROLLER - ELECTRACAM/FUN R/C
EL-CHARGER	DC FAST CHARGER DELTA-PEAK ELECTRACAM/FUN R/C
6600330-ME	AC POWER ADAPTOR ELECTRACAM/FUN R/C

SPARE PARTS -UK

Please order spare parts for your Electrafun2.4G from your local hobby retailer:

Part No.	Description
7719806	E-SCALE 4ch TX/RX SET (MODE 2) 2.4GHz
7719830	E-SCALE 6ch RECEIVER 2.4GHz
JPELE03	FUSELAGE & BOOM - ELECTRACAM/ELECTRAFUN R/C (NO DECAL)
JPELE04	TAIL & FIN SET - ELECTRACAM/ELECTRAFUN R/C (NO DECAL)
JPELE05	MAIN WING SET - ELECTRACAM/ELECTRAFUN R/C (NO DECAL)
JPELE12	DECAL SET - ELECTRAFUN2.4G
JPELE25	PROPELLER - ELECTRACAM/ELECTRAFUN R/C
JPELE30	NIMH 900Mah BATTERY - ELECTRACAM/FUN (8.4v)
JPELE40	SERVO - ELECTRACAM/FUN R/C
JPELE44	LANDING GEAR SET- ELECTRACAM/FUN R/C
JPELE80	ELECTRIC MOTOR - ELECTRACAM/FUN R/C
JPELE85	SPEED CONTROLLER - ELECTRACAM/FUN R/C
JPELE97	DC FAST CHARGER DELTA-PEAK ELECTRACAM/FUN R/C
JPELE99	AC POWER ADAPTOR ELECTRACAM/FUN R/C

ElectraFun 2.4G

With factory fitted 2.4GHz Radio

Australasian agents: Model Engines,
Melbourne, Australia

www.modelengines.com.au

European agents: J Perkins Distribution,
Lenham, England

www.jperkinsdistribution.co.uk

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